Smarter Streetlights in Minutes

Transitioning street lighting from high-pressure sodium to LED is a big investment. How can you get the greatest possible returns — and a platform to support your future smart city plans?

The business case for switching from traditional streetlights to LEDs is undeniable. On their own, LEDs can cut municipal electricity consumption by as much as 50%. Yet converting lighting infrastructure alone can have a total cost of ownership (TCO) in the tens of millions and leave additional savings and environmental benefits on the table.

To realize the full potential of your LED investment, you need to connect your streetlights in a smart, integrated system — with fine-tuned control and data-driven insights that increase your energy savings, lower greenhouse gas (GHG) emissions and reduce your street lighting TCO.

UbiCell Smart Lighting Control platform does all that and more, providing a springboard to smarter city.

Incorporating lighting control at the time of deployment can reduce LED street lighting TCO by

$41 million

over 15 years for a mid-sized city.

Smart lighting controls can **reduce a city's energy costs by 20 to 40%.**

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The Foundation for Smart City Applications

Smart lighting controls amplify the benefits of LED streetlights through dimming, power metering, automated reporting and more — increasing electricity savings, simplifying infrastructure management, and providing the foundation for future smart city applications.

Fine-grained control

- Optimize power consumption with advanced dimming protocols
- Take advantage of highly accurate scheduling controls and optional photocell activation

Simple installation and upgrades

- Install in minutes with auto-provisioning over a cellular network
- Update devices remotely — no need for truck rolls

Infrastructure insights

- Monitor power use and power quality to track street lighting performance and costs
- Real-time data on pole and luminaire condition with tilt impact detection

Unified management system

- Monitor and manage your entire streetlight network with a single cloud-based management system
- Use built-in APIs to integrate other applications relevant to your city

Connects automatically to UbiVu, bringing your smart infrastructure online in seconds with data in minutes

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UbiCell Smart Lighting Control

The UbiCell Smart Lighting Control platform is secure, resilient, and versatile, with double the industry standard surge rating and built-in support for extended capabilities such as air quality monitoring. UbiCell nodes can be mounted via any standard NEMA socket.

Secure high-speed data processing

- CAT 1 modem transmits data at up to 100MB/s
- Modem supports a wide range of frequencies
- Trust M security with AES encryption
- Secure Ubicquia private cloud eliminates the need for customer server infrastructure

Extended capabilities

- Supports external sensors for air quality monitoring and other smart city functions
- Embedded GPS location enables precise mapping of streetlight inventory
- Programmable UbiVu reporting frequency* provides data updates at intervals you choose

Powerful resilience

- 20 kV/10kA Type C surge rating* is 2X industry standard for extreme weather environments
- 'Last gasp' reports and alarms give UbiCell status immediately prior to any power loss
- Triac-assisted relays activate streetlights in case of UbiCell failure

Centralized cloud-based management (UbiVu)

- Allows centralized inventory management and scheduling of lighting functions
- Provides a holistic view of the deployment
- Features a simple user interface
- Supports application integration via built-in APIs

Streamline, secure cellular connectivity

To deliver their value, smart streetlights need to be connected in a network. That can be done by deploying a radio frequency (RF) mesh or with cellular technology. The UbiCell platform uses LTE cellular connectivity to deliver maximum:

1. **Security** — by utilizing licensed frequencies managed by trusted mobile network operators (MNOs)
2. **Reliability** — by taking advantage of proven architecture in which no single point of failure can bring down the network
3. **Affordability** — by eliminating the need for additional gateway hardware and in-house network management expertise
4. **Scalability and ease of operations** — by relying on the MNO network's built-in efficiency and low latency for performance

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Achieve Your Sustainable Smart City Goals

Ubicquia's single plug-and-play platform for park-enhancing applications lets you leapfrog incremental technology evolution and get straight to benefiting from the full range of smart city capabilities.

Boost your ROI by nearly 600%

Deploying UbiCells at the same time as you transition to LED street lighting vastly improves your total return on investment — with a two-year break-even.

Hit your climate action targets

UbiCells can help a mid-sized city with 46,000 streetlights cut more than 41 tons of additional greenhouse gas (GHG) emissions than LEDs alone.

Scale as your needs change

There's no limit to the number of UbiCells you can deploy. Add more at any time, in any quantity, with installation in minutes and network connectivity right away.

Benefit from ongoing innovation

Add other sensors such as Air Quality Monitoring (AQM) to extend your smart city capabilities and take advantage of new features as they are added — such as Wi-Fi motion detection, coming soon.

Contact us today to learn how UbiCell can revolutionize your smart street lighting: https://www.ubicquia.com/products/ubicell

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